

# **LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES**



**OFFICE OF FISHERIES  
INLAND FISHERIES SECTION**

**PART VI -A**

**WATERBODY MANAGEMENT PLAN SERIES**

**BAYOU PLAQUEMINE**

**HISTORY & MANAGEMENT ISSUES**

# **CHRONOLOGY**

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## **LAKE HISTORY**

### **GENERAL INFORMATION**

#### Formation

Bayou Plaquemine is a natural bayou that historically was a feature of the Gulf Intracoastal Waterway. The bayou was a natural distributary of the Mississippi River at Plaquemine, Louisiana. Post-Civil War, flooding became a major problem for landowners adjacent to the bayou. In response to flooding issues, construction of the Mississippi River levee closed the connection to the mouth of the bayou thus ending commercial traffic through the bayou. To maintain water levels in the bayou, and to allow for commercial access, a lock was completed in 1909 after 14 years of construction. The lock was closed after 52 years of service in 1961 due to increased river traffic and the demand for a larger lock, which opened thereafter in Port Allen. In 2006, a pump system was installed at the historic lock site to pump Mississippi River water back into the bayou and improve water quality.

#### Size

7.5 miles in length (approx. 91 acres)

#### Elevation

Lock floor elevation is 12.5 feet MSL National Geodetic Vertical Datum.

#### Watershed

Bayou Plaquemine receives water From the Mississippi River via pump located at the historic lock. The remaining input is from Bayou Jacob and runoff from adjacent land.

#### Parishes located

Iberville Parish (SEE [APPENDIX I](#) – LOCATION MAP).

#### Border waters

Mississippi River, Bayou Jacob and Grand River (Intracoastal Waterway)

#### Drawdown description

None

### **AUTHORITY**

#### Association

City of Plaquemine and Iberville Parish

### **ACCESS**

#### Boat docks

Two boat ramps are located on Bayou Plaquemine as indicated in Table 1 below. Additional information for Louisiana boat launches can be found at the following link: <http://lamarinas.losco.lsu.edu/>. A boat docking facility is located near the Plaquemine Lock at the Bayou Plaquemine Waterfront Park.

Table 1. Boat launching facilities for Bayou Plaquemine, LA.

<b>BOAT LAUNCHING FACILITIES BAYOU PLAQUEMINE</b>		
<b>Name</b>	<b>Coordinates</b>	
Old Public Landing	30.247379	-91.270264
New Public Landing	30.271742	-91.259585

(SEE [APPENDIX II](#) – MAP AND LANDINGS)

#### Piers

Public fishing piers are located at the New Public Landing and at the Bayou Plaquemine Waterfront Park. <http://www.plaquemine.org/PageDisplay.asp?p1=3575>

#### State/Federal facilities

Plaquemine Lock State Historic Site.

<http://www.crt.state.la.us/louisiana-state-parks/historic-sites/plaquemine-lock-state-historic-site/index>

#### Reefs

NONE

## **SHORELINE DEVELOPMENT**

#### State/National Parks

Plaquemine Lock State Historic Site.

<http://www.crt.state.la.us/louisiana-state-parks/historic-sites/plaquemine-lock-state-historic-site/index>

#### Shoreline development by landowners

Most of the shoreline is developed either by home/camp owners, agriculture, commercial, golf course and roadway. Approximately 90% of the shoreline has a timbered buffer zone.

## **PHYSICAL DESCRIPTION OF WATER BODY**

#### Shoreline length

Approximately 15 miles

#### Timber type

Bottomland hardwoods

Average depth

8 feet

Average width

100 feet

Natural seasonal water fluctuation

Water levels are maintained by the pump at the historic lock site and via the lock at Port Allen.

## **EVENTS / PROBLEMS**

Pre-Civil War – Bayou provided access to the Atchafalaya Basin from the Mississippi River. Bayou was dredged and widened several times to aid in commercial traffic.

Post-Civil War – Mississippi River levee was constructed at the mouth of the bayou to prevent flooding in the land adjacent to the distributary.

1895 – Construction of lock begins. Purpose of the lock was to provide a short-cut from the Mississippi River into Louisiana's interior. Residents of Iberville Parish got approval for the lock through Congress.

1909 – Lock construction is complete. It was the highest freshwater lift in the world at 51 feet. The gates were later modernized by the installation of hydraulic pumps.

1925 - Bayou Plaquemine had become the northern terminus of the Intracoastal Canal system.

1961 – Lock is permanently closed.

1972 – Lock is placed on the National Register of Historic Places.

1978 – U.S. Army Corps of Engineers transfers ownership of the lock to the State of Louisiana.

1993 – Iberville Tourist Commission and the Chamber of Commerce signed a cooperative agreement with the State of Louisiana and the City of Plaquemine to run the site of the lock as a museum and tourist information center.

1999 - U.S. Army Corps of Engineers completes a feasibility study to make modifications to the lock. Since closure of the lock, water conditions in the bayou have stagnated.

Modifications to the lock would introduce Mississippi River water into Bayou Plaquemine.

2006 - U.S. Army Corps of Engineers completes a \$2.5 million dollar project that pumps water from the Mississippi River into the bayou. The project was funded through the U.S. Army Corp of Engineers Section 1135(b) Program. Plaquemine was one of the first in the country to receive such a funding award. Local funding was provided by the City of Plaquemine and the Atchafalaya Basin Program under the Louisiana Department of Natural Resources.

2006 – LDWF starts evaluating the fishery of Bayou Plaquemine and begins stocking fish as part of the restoration efforts of the bayou.

## MANAGEMENT ISSUES

### AQUATIC VEGETATION

There are no records of aquatic vegetation treatment or complaint.

### HISTORY OF REGULATIONS

#### Recreational

Statewide regulations are in effect for all species.

<http://www.wlf.louisiana.gov/fishing/regulations>

#### Commercial

Statewide regulations on all species

<http://www.wlf.louisiana.gov/fishing/regulations>

### FISH KILLS / DISEASE HISTORY

There are no records of fish kills or disease.

### CONTAMINANTS / POLLUTION

#### Water quality

Bayou Plaquemine was listed on DEQ's list of impaired waterways in 2008 because it did not meet the standard for dissolved oxygen. Bayou Plaquemine was removed from the list in 2010.

#### Fish consumption advisory

NONE

### BIOLOGICAL

#### Fish sampling

To monitor the sport fishery of Bayou Plaquemine, LDWF initiated standardized sampling in 2006 (Table 2).

Table 2. Historical, current and proposed sampling efforts on Bayou Plaquemine, LA from 2006 – 2019.

BAYOU PLAQUEMINE SAMPLING	
2006	Electrofishing – 2 stations (spring)
	Electrofishing – 3 stations (fall)
2007	Electrofishing – 3 stations (spring/fall)
2008	Electrofishing – 3 stations (spring/fall)



2009	Electrofishing – 3 stations (spring/fall)
2010	Electrofishing – 3 stations (spring/fall) Hoop nets – 3 stations
2013	Electrofishing – 3 stations (spring/fall) Hoop nets – 3 stations
2016	Electrofishing – 3 stations (spring/fall)
2019	Electrofishing – 3 stations (spring/fall)

### Stocking History

Bayou Plaquemine has been stocked with 16,041 Florida strain largemouth bass since 2006 (Table 3).

Table 3. Stocking history of Bayou Plaquemine, LA from 2006 – 2010.

<b>YEAR</b>	<b>FLORIDA LARGEMOUTH BASS (fingerlings)</b>	<b>FLORIDA LARGEMOUTH BASS (phase II)</b>
2006	13,593	1,352
2007	-	1,006
2010	-	90

### Species profile

Fish species collected or known to occur in Bayou Plaquemine, LA are found in Table 4.

Table 4. Fish species collected or known to occur in Bayou Plaquemine, LA.

#### Family, Scientific and Common Names

- Polyodontidae - paddlefishes
  - Polyodon spathula* – paddlefish
- Lepisosteidae - gars
  - Lepisosteus oculatus* - spotted gar
  - Lepisosteus osseus* - longnose gar
  - Lepisosteus platostomus* – shortnose gar
  - Atractosteus spatula* - alligator gar
- Amiidae - bowfin
  - Amia calva* - bowfin
- Anguillidae – freshwater eels
  - Anguilla rostrata* – American eel
- Clupeidae - herrings
  - Dorosoma cepedianum* - gizzard shad

*Dorosoma petenense* - threadfin shad  
*Alosa chrysochloris* – skipjack herring  
 Cyprinidae - carps and minnows  
*Cyprinus carpio* - common carp  
*Ctenopharyngodon idella* – grass carp  
*Notemigonus crysoleucas* – golden shiner  
*Notropis atherinoides* – emerald shiner  
*Notropis maculatus* – taillight shiner  
*Cyprinella venusta* – blacktail shiner  
*Hypophthalmichthys nobilis* – bighead carp  
*Hypophthalmichthys molitrix* – silver carp  
 Catostomidae - suckers  
*Ictiobus bubalus* - smallmouth buffalo  
*Ictiobus cyprinellus* - bigmouth buffalo  
*Erimyzon sucetta* – lake chubsucker  
*Ictiobus niger* – black buffalo  
 Ictaluridae - North American catfishes  
*Ictalurus furcatus* - blue catfish  
*Ictalurus punctatus* - channel catfish  
*Pylodictis olivaris* - flathead catfish  
*Ameiurus melas* – black bullhead  
*Ameiurus natalis* – yellow bullhead  
*Noturus spp.* - madtom  
 Aphredoderidae – pirate perch  
*Aphredoderus sayanus*  
 Poeciliidae - livebearers  
*Gambusia affinis* – western mosquitofish  
*Poecilia latipinna* – sailfin molly  
 Atherinidae – silversides  
*Menidia audens* – Mississippi silverside  
*Menidia beryllina* – inland silverside  
 Moronidae - temperate basses  
*Morone chrysops* – white bass  
*Morone mississippiensis* – yellow bass  
*Morone saxatilis* - striped bass  
 Striped bass x white bass - hybrid striped bass  
 Centrarchidae - sunfishes  
*Centrarchus macropterus* - flier  
*Lepomis cyanellus* – green sunfish  
*Lepomis gulosus* – warmouth  
*Lepomis humilis* – orangespotted sunfish  
*Lepomis macrochirus* – bluegill  
*Lepomis marginatus* – dollar sunfish  
*Lepomis symmetricus* – bantam sunfish  
*Lepomis megalotis* – longear sunfish  
*Lepomis microlophus* - redear sunfish

*Lepomis punctatus* – spotted sunfish  
*Micropterus salmoides* - largemouth bass  
*Micropterus punctulatus* - spotted bass  
*Pomoxis annularis* - white crappie  
*Pomoxis nigromaculatus* - black crappie  
 Sciaenidae - drum  
*Aplodinotus grunniens* – freshwater drum  
 Syngnathidae – pipefish and seahorses  
*Syngnathus scovelli* – gulf pipefish  
 Fundulidae – topminnows and killifish  
*Fundulus chrysotus* – golden topminnow  
*Fundulus notatus* – blackstripe topminnow  
*Heterandria formosa* – least killifish  
 Mugilidae – mullets  
*Mugil cephalus* – striped mullet

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#### Genetics

The largemouth bass population has not been tested genetically for the Florida genome.

#### Threatened/endangered/exotic species

Pallid sturgeon (*Scaphirhynchus albus*) and shovelnose sturgeon (*Scaphirhynchus platyrhynchus*), two federally threatened and endangered species, inhabit the reach of the Mississippi River where Bayou Plaquemine connected. Common carp, Asian carp, and grass carp are present as well.

Gulf pipefish (*Syngnathus scovelli*) and paddlefish (*Polyodon spathula*) are listed as species of conservation concern in the Louisiana Comprehensive Wildlife Action Plan (2016).

### **ANGLER SURVEYS**

#### Historic information

NONE

#### Current methods

NONE

### **HYDROLOGICAL CHANGES**

- Post Civil War levee constructions separated the bayou from the Mississippi River.
- Lock construction in 1909.
- Lock is closed in 1961.
- Pump system is installed at site of historic lock to flow river water into the bayou in 2006.

## **WATER USE**

Hunting

Yes

Skiing

Yes

Scuba Diving

No

Swimming

Yes

Irrigation

No

Fishing

Yes

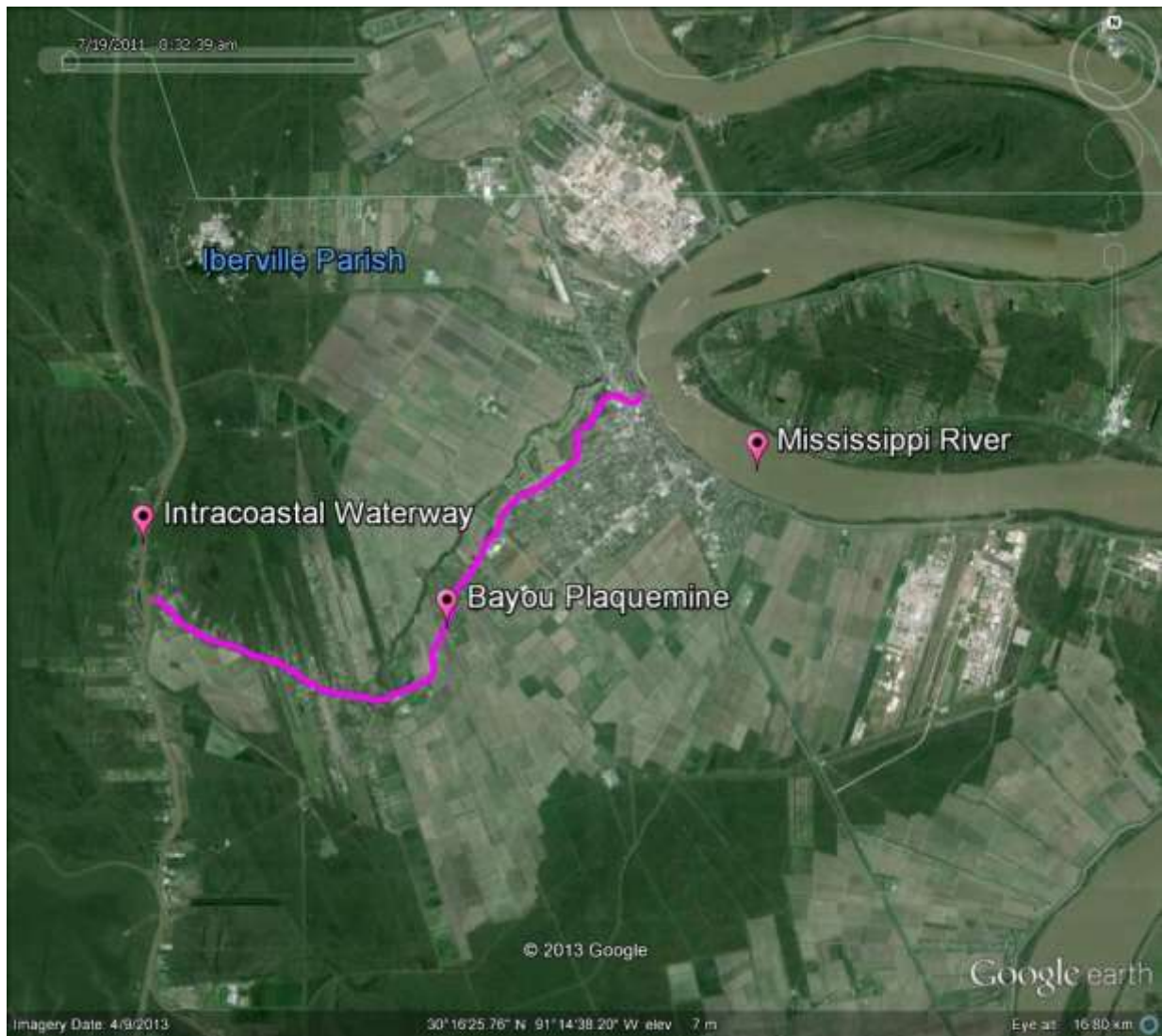
Boating

Yes

## **APPENDIX I**

### **LOCATION MAP**

[\(return to Parishes\)](#)



## APPENDIX II

### MAP AND LANDINGS

[\(return to boat docks\)](#)

